

REMARKS/ARGUMENTS

**Support for Amendments / Claim Status**

**A. Specification**

The specification is currently amended as indicated herein. Most notably, phrases relating to “particles having *an average* particle size of 10  $\mu\text{m}$  or less” have been amended to recite “particles having *a* particle size of 10  $\mu\text{m}$  or less.” These amendments are being made in light of inadvertent translation errors from the Japanese language PCT specification.

Applicants submit herewith a Declaration attesting to these inadvertent translation errors. As such, Applicants respectfully request entry of the amendments to the specification indicated herein.

**B. Claims**

Claims 1 and 3-16 are pending. Claim 1 is currently amended and finds support at paragraphs [0020] and [0026] of the specification. Claim 2 was previously canceled without prejudice, and claim 17 is currently canceled without prejudice. Claims 3 and 4 are withdrawn pursuant to a previous Restriction Requirement. Claims 5-16 remain as previously presented. No new matter has been entered.

**§112, 1<sup>st</sup> paragraph, Rejections**

**A.** Claims 1 and 17 are rejected under 35 U.S.C. §112, first paragraph, because the specification “does not reasonably provide enablement for the generically claimed modifier recited in claims 1 and 17.” At the outset, Applicants note that claim 17 is currently canceled and this rejection has therefore been rendered moot with respect to claim 17. Regarding claim 1, Applicants respectfully traverse this rejection.

The test for enablement is whether one of ordinary skill would need to engage in *undue experimentation* to practice the claimed invention (MPEP §2164.01). There are many

factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is “undue” (MPEP §2164.01(a)). These factors were laid out in *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988)): breadth of the claims, nature of the invention, state of the prior art, level of ordinary skill in the art, predictability in the art, amount of direction provided in the specification, any working examples, and quantity of experimentation needed relative to the disclosure. A proper analysis of whether any experimentation is undue requires an analysis of all the *Wands* factors (MPEP §2164.01(a)). It is *improper* to conclude that disclosure is not enabling based on an analysis of only one of the above factors while ignoring one or more of the others (Id.).

With the above-described standard for enablement rejections in mind, Applicants submit that the Office has failed to meet its burden with respect to establishing a lack of enablement. For instance, not a single *Wands* factor was discussed in the enablement rejection, nevermind an analysis of “all the *Wands* factors” as suggested by the MPEP as being “proper” (MPEP §2164.01(a)). Accordingly, in light of the Office’s failure to meet its burden with respect to establishing a lack of enablement, Applicants respectfully request that this rejection be withdrawn.

**B.** Claims 1, 2 and 5-17 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. More specifically, the Office points to a recitation of a particle size of “200 nm or more” (i.e., 0.2  $\mu$ m or more) in paragraph [0018] (page 16) and a recitation of a particle size of “20  $\mu$ m or more” in paragraph [0020] (page 17) to apparently allege some type of contradiction and then conclude lack of enablement. Applicants respectfully traverse this rejection.

At the outset, Applicants point out that claim 2 was previously canceled and should not be included in these rejections. Regarding the remaining claims, Applicants provide the following remarks.

Paragraph [0018] includes the following recitation: “The graft copolymer used in the modifier for resin of the present invention is recovered by spray drying of a latex obtained by the polymerization. At this time, a graft polymer having an average particle size of 200 nm or more in the latex obtained finally so as to improve dispersibility in a thermoplastic resin and a curable resin.” Accordingly, the average particle size described in paragraph [0018] is an average latex particle size (emulsion state) of the graft copolymer in the latex before spray drying. Applicants note that this is further emphasized/explained in paragraph [0026].

In contrast, the average particle size described in paragraph [0020] is an average powder particle size of 20  $\mu\text{m}$  or more of a modifier which has been obtained by spraying a latex to form minute droplets and then drying the minute droplets by blowing a hot blast (see also the preceding paragraph [0019]). Applicants again note that this is further emphasized/explained in paragraph [0026].

Accordingly, as these two size ranges are referring to different particles at different stages (e.g., pre-spray drying versus post-spray drying, etc.), Applicants submit that there is no contradiction between these two recitations. As such, Applicants submit that the Office’s allegation that the claims “fail to comply with the enablement requirement,” which is based on a faulty understanding of these differences, is unfounded. Accordingly, Applicants respectfully request withdrawal of this rejection.

**§112, 2<sup>nd</sup> paragraph, Rejection**

Claims 1, 2 and 5-17 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for numerous reasons (see pages 3-4 of outstanding Office Action). Applicants traverse these rejections.

At the outset, Applicants point out that claim 2 was previously canceled and should not be included in these rejections. The remaining rejections noted in the Office Action, all refer to claims 1 and 17. As claim 17 is currently canceled, the rejections referring to claim 17 have been rendered moot. With respect to the rejections of claim 1, Applicants submit that the significant amendments to current claim 1 obviate these rejections.

Lastly and specifically addressing the Office's assertion that "it is unclear as to whether or not the non-irradiated modifier requires the presence of any "particles having an average particle size of 10 um or less" given that the lower limit of "less than 30% by mass" is zero," Applicants point out that current claim 1 requires the presence of particles having a particle size of 10  $\mu\text{m}$  or less by the phrase "the non-irradiated powder particles *comprise* powder particles having a particle size of 10  $\mu\text{m}$  or less."

In light of the foregoing, Applicants respectfully request withdrawal of the indefiniteness rejections of record.

**§102(b)/§103(a) Rejections**

**A. Rauch**

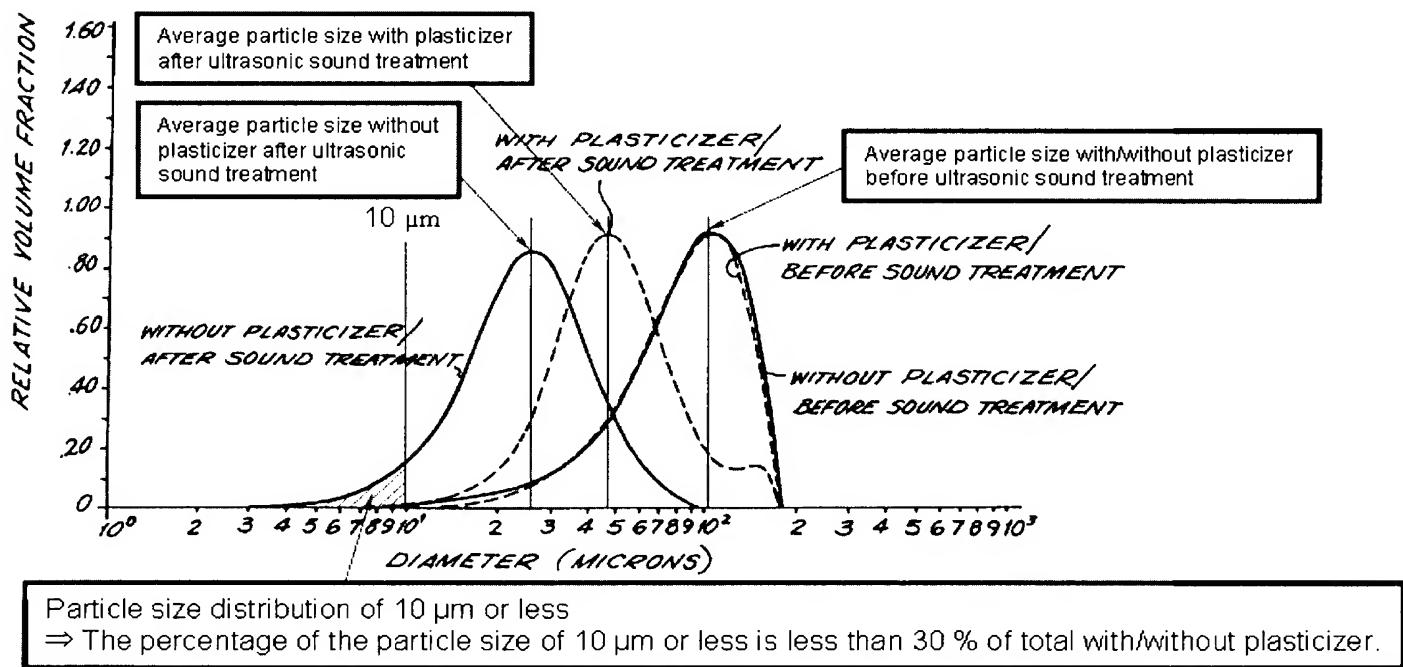
Claims 1, 2 and 5-16 are rejected under 35 U.S.C. §102(b) as anticipated by, or in the alternative under 35 U.S.C. §103(a) as obvious in view of Rauch. Applicants respectfully traverse this rejection.

At the outset, Applicants point out that claim 2 was previously canceled and should not be included in this rejection. Regarding the remaining claims, Applicants provide the following remarks.

In the outstanding Office Action the Office states that "Figures 1 to 5 disclose various non-irradiated spray-dried polymers wherein the majority of the particles have particle sizes of 20  $\mu\text{m}$  or more (meeting the generic presently claimed non-irradiated polymer)." The Office also states that "it is noted that the particle size distribution of the reference particles after ultrasonic treatment (under different conditions than those claimed) shows a larger proportion of smaller sized particle sizes as compared to those before ultrasonic treatment (Figure 1)."

Applicants reproduce below Figure 1 of Rauch and have inserted commentary for ease of reference and the following discussion.

**FIG. 1** EX. 1-PARTICLE SIZE DISTRIBUTION  
(DIFFERENTIAL VOLUME DISTRIBUTION)  
BEFORE AND AFTER ULTRASOUND TREATMENT



Applicants point out that this figure of Rauch represents a particle size distribution (i.e., a differential volume distribution) before and after ultrasound treatment. Also, as can be seen from the figure, both the average particle size for the with-plasticizer particles and the without-plasticizer particles *before* sound treatment is approximately 100  $\mu\text{m}$ . As can also be seen from the figure, the average particle size for the with-plasticizer particles *after* sound treatment is 40.5  $\mu\text{m}$  and the average particle size for the without-plasticizer particles *after* sound treatment is 20.5  $\mu\text{m}$ . Lastly, Applicants point out that the particle size distribution in Rauch for particles of 10  $\mu\text{m}$  or less after sound treatment is clearly less than 30% of the total with- or without-plasticizer particles.

Accordingly, Rauch does not disclose or suggest the claimed invention which requires that "the less than 30% by mass of the powder particles having a particle size of 10  $\mu\text{m}$  or less becomes more than 30% by mass of the modifier, based on 100% by mass of the modifier, when said powder particles having a particle size of 10  $\mu\text{m}$  or less are irradiated with an ultrasonic wave of 40 W for 5 minutes."

As such, Rauch neither anticipates nor renders obvious the claimed invention. Thus, Applicants respectfully request withdrawal of the §102(b)/§103(a) rejection over Rauch.

**B. Kasai**

Claim 17 is rejected under 35 U.S.C. §102(b) as anticipated by, or in the alternative under 35 U.S.C. §103(a) as obvious in view of Kasai. As claim 17 is currently canceled, this rejection has been rendered moot.

**C. Endo**

Claim 17 is rejected under 35 U.S.C. §102(b) as anticipated by, or in the alternative under 35 U.S.C. §103(a) as obvious in view of Endo. As claim 17 is currently canceled, this rejection has been rendered moot.

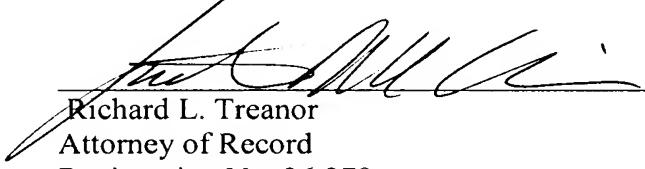
Application No. 10/589,501  
Reply to Office Action of September 30, 2010

**Conclusion**

For the reasons discussed above, Applicants submit that all now-pending claims are in condition for allowance. Applicants respectfully request the withdrawal of the rejections and passage of this case to issue.

Respectfully submitted,

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